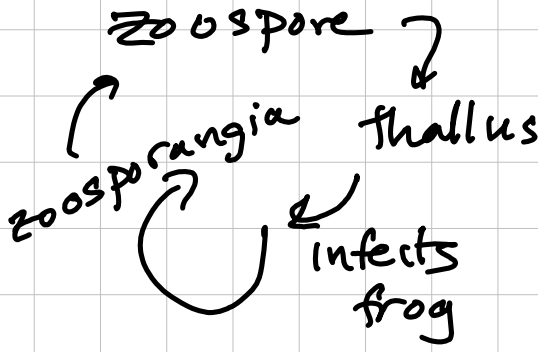- Vredenburg notes
- Combes discussion
- epi models, continued

Batrachochytrium dendrobatidis

– PANDEMIC

chytrid.

life cycle

zoospore
zoosporangia thallus
infects frog

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emerging disease → why now?
- novel pathogen hypothesis.
- tipping point hypothesis
  (thermal optimum hypothesis)

ComBES.
ch 1-2.
'hybridization of information'

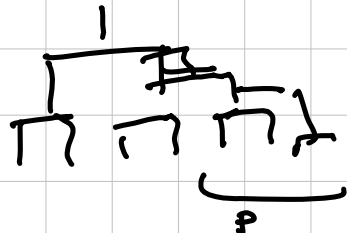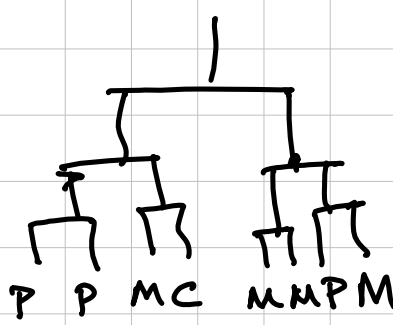host genotype + parasite genotype
host phenotype

Dawkins - 'extended phenotype'

· Croisement ·

→ exploiters, mutualists, etc. ↩

OPERATIONALIZE.

· net change in fitness.

P P MC MMPM

P

EPIDEMIC models

R_0.   maximum fitness per generation

'expected number of new cases caused by a single case in an uninfected population
(100% S)

$$R_0 < 1$$
$$R_0 > 1 \qquad 1.001$$

MERS

2-3   HIV

15-18 measles.

control: bring R_0 below 1

critical control fraction 0.5

$$\left(1 - \frac{1}{R_0}\right)$$

1 2 6-7   20
   smallpox

→ malaria

R_t